GOVERNMENT OF INDIA.

REVENUE AND AGRICULTURAL DEPARTMENT.

WEATHER SUMMARY FOR MARCH 1888.

During March pressure falls everywhere throughout the Indian region, but to a much less extent over the Bay than over the land surface; hence over the Bay there is in normal years a region where pressure is higher not only than it is in any part of India, but also over the Equatorial Sea to the South. Pressure is ordinarily lowest over the east of the Central Provinces and Chutia Nagpur. During the past month there has been some considerable departure from these normal conditions. Relatively high pressures have, indeed, been shown over the Carnatic and the Bay, but on the West Coast pressure has been almost equally high. The greatest departure from the normal distribution has, however, been shown in respect to the position of the area of minimum pressure, which during nearly the whole month has been found either over North-Western or North-Eastern India. The wind directions have been fairly normal, though the southerly wind from the Bay into Bengal has been stronger and steadier than usual, while cyclonic circulations have at times disturbed the wind movements of Upper India.

The rainfall of March is usually light, and is generally attributable in the North-West to the appearance of a late cyclonic storm, and in Bengal and Assam to the early commencement of what is called the spring rainfall. In the past month the rainfall has been even lighter than usual, except in Assam and Cachar, where probably owing to the low pressures over North Bengal, noticed above, there has been a strong indraught of moist southerly winds from the Bay.

From the 1st to the 5th of March pressure was generally uniform throughout India, the winds light and variable, and the weather, except for a few light showers in the Berars and Central Provinces on the 2nd, was fine with a generally rising thermometer. On the 6th, however, the Chart showed a small cyclonic storm lying between Neemuch and Indore, and on that day or during the following night rain fell in Sind and all over the Central parts of the country. This rainfall gradually spread eastward, being reported from Hazaribagh and Raipur on the 8th and from Bengal, Assam, and Arrakan on the 9th and 10th. In the meantime the Chart of the 9th showed a brisk barometric fall all over North-Western India, and on the 10th a small but well marked depression lay near Dera Ismail Khan, where the barometer had fallen to 29·65". This depression travelled eastward from Dera Ismail Khan towards Lahore, and appeared on the 11th to be filling up, but on the 12th it underwent redevelopment, and the south-easterly winds on its northern and eastern side brought up slight rain to the north and east of the Punjab. At the same time moderate rain was falling over Assam and East Bengal. On the 13th the distribution was very complicated; a band of low pressure, with its minimum between Hyderabad and Jacobabad, stretched right across India from Sind to the Circars. To the south of this band the wind was westerly, to the east southerly, and to the north south-easterly and easterly. The two last currents apparently brought up much moisture, and rain was reported from nearly every station in Northern India from Assam to the Punjab. On the 14th the distribution of pressure had completely changed, the band of low pressure having disappeared, and readings being lowest over Western Bengal. The winds had at the same time become more variable, and rain was confined to Bengal and Assam. On the 15th, 16th and 17th local showers were reported from several parts of North-Western and North-Eastern India, but beyond this the weather called for no remark.

Between the 19th and 21st the distribution was complicated, but the weather was generally fine. On the 22nd the barometer began to fall fast over North-Western India, with southerly winds in the Indus Valley and rain at Quetta; and on the 23rd a large shallow depression was shown over the Western desert, and rain had extended to the north-west of the Punjab. On the 24th pressure had fallen quickly over the whole of Northern India, over which region a large low pressure area had been formed, while, owing to the barometer remaining steady in the South, rather steep gradients prevailed over India. In consequence the winds were strong—especially at the head of the Bay—and rain was falling in Assam. The Chart of the 25th showed that in addition to the low pressure area which still held over Northern Bengal, a small but rather deep depression lay over Upper Sind. The winds were strong in the neighbourhood of both disturbances. Rain continued in Assam, and was also falling at Quetta and Belgaum. By the morning of the 26th the depression from Upper Sind had advanced north-eastward to Multan. Round the disturbance there was a very complete cyclonic circulation of the winds, and rain was falling all over the north of the Punjab. Showers continued in Assam. By the following day, the 27th, the depression had disappeared, and a large high pressure area had been formed over North-Western India, while the lowest barometric readings were again shown over Bengal. This disturbance continued during the 28th; but on the 29th a brisk barometric fall occurred in the North-West, and on the 30th another depression was shown over the Punjab. This disturbance was however slight, and no rain accompanied it. On the 31st the weather was fine, except in Assam, where showers still continued.

Pressure.—The mean pressure of the month has been generally above the normal average over the Peninsula and the Central parts of the country, and below it over Northern India. The defect was generally small, except in the Punjab.

Temperature.—The mean temperature of the month has been in defect of the average over East Bengal, and at one or two places in the Peninsula, but has been in excess in all other parts of the country. The greatest excess, 5°, was at Rewalpindi, but at Agra, Ludhiana, Lahore, Chakrata, and Quetta it amounted to 4°. The area of maximum heat has, on the whole, advanced steadily northward. In the earlier days of the month Salem reported the absolute maximum for the Indian region. After the first week the Bombay Deccan became on the average the hottest district in India. About the 10th and 11th a sudden accession of heat was reported from Sind, but on the 12th the absolute maximum was again reported from Sholapur. On the 14th the hottest district was the Central Provinces and from that date till the close of the month the area of greatest heat oscillated northward and southward over the inland parts of the Peninsula, the Central Provinces, and the Berars. Quite at the close of the month a sudden rise of temperature occurred over Upper India, and maxima exceeding 100° were reported as far north as Sirsa and Delhi on the 30th and 31st; but previous to that date there had been a spell of unusually cool weather all over North-Western India.

Humidity variations were irregular.

Rain.—Notwithstanding the disturbed condition of the atmosphere, as evinced by the numerous depressions reported during the month, the rainfall generally was short of the average. In Assam and Cachar there was an excess of 1½ inch, and in Bengal, the Berars Khandesh, and the Konkan a trifling excess over the small amount usually received; but in all other parts of India the rainfall has been short.

The following table shows the amount of rain and the difference from the average, during the month of March 1888, according to Districts, as far as is indicated by the telegraphic reports:

Districts.	No. of Stations.	Average rainfall in March.	Difference from the average in March 1888.
Punjab, West	7	1·62	—0·66
" East	4	1·43	0·67
North-Western Provinces, Trans-Gangetic	9	1·29	—0·55
" " Cis- "	3	0·55	—0·11
Behar	2	0·39	—0·35
North Bengal	2	1·37	—0·56
Assam, Cachar	3	4·82	+1·22
Lower Bengal—Chutia Nagpur	7	1·55	+0·01
Orissa, Northern Circars	6	0·68	—0·32
Central Provinces, South	7	0·40	—0·18
Berar—Khandesh	2	0·38	+0·50
Rajputana, Central India—Sangor, and Nerbudda	8	0·17	—0·10
Sind—Cutch	3	0·13	—0·03
Guzerat	3	0·03	—0·03
Konkan	4	0·01	+0·02
Deccan—Hyderabad	5	0·42	—0·27
Malabar	4	0·83	—0·64
Mysore—Bellary	4	1·07	—0·88
Carnatic	6	0·48	—0·47
Lower Burma	6	0·15	—0·12
Ceylon	2	4·86	—3·17

SIMLA,
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